A tributary flows into the Hackensack River

An example of controlling Phragmites by burning

**Partners** 

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When the first Europeans arrived in North America, the Hackensack Meadowlands was an immense 20,000-acre wetland with a diversity of estuarine marsh, freshwater marsh, and Atlantic white-cedar swamp. The area was abundant with a variety of fish and wildlife because of the diversity of habitat it provided. Intensive urban development, landfills, industrial pollution, mosquito control, dredging, and draining have resulted in the degradation and destruction of over 12,000 acres of wetlands. The remaining 8,000 acres of wetlands were originally considered a biological wasteland and generally unpleasant. However, as Americans have come to understand and recognize the importance of wetlands for water quality, flood control, fish and wildlife habitat, and areas for passive recreation, our attitudes toward the Meadowlands have changed. We have moved from indiscriminate pollution and seeking ways to fill or drain wetlands to beginning to seek solutions on how to restore wetland functions and values.

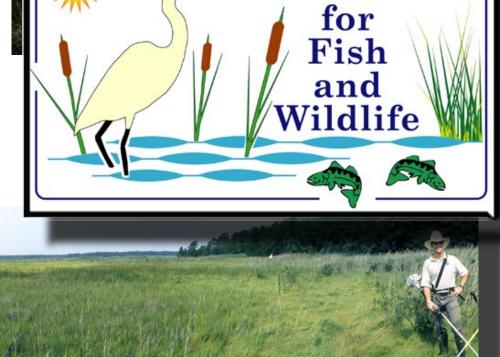
Wetland restoration is the process of creating or enhancing wetlands degraded by direct or indirect human activity. Restoration can involve controlling invasive species, reestablishing natural hydrology, reintroduction of native vegetation, or creating vegetated upland buffers as an antidote to the impacts of runoff. In the Meadowlands, much of the wetlands restoration work has focused on controlling common reed (Phraamites australis). While common reed is native to North America, the invasive form of Phragmites common in most New Jersey wetlands is an introduced variant from Europe. *Phragmites* can be problematic because it creates large monotypic stands that reduce ecological diversity, limit fish access to the marsh surface and degrade

wildlife values, interfere with tidal flow, and increase wildfire hazard. This is not to say that wetlands dominated by *Phragmites* have no functions and values, only that it is possible to restore and improve those functions and values.

The New Jersey Meadowlands Commission has been working to preserve and enhance wetlands within the Meadowlands and has three sites that are nearing completion. Restoration of the Skeetkill Creek Marsh (16 acres) and the Harrier Meadow Marsh (78 acres) involves control of common reed, re-establishment of tidal flow, and creation of

open water areas. Construction activities are completed on these marshes, and the wetland functions are currently being assessed. The Mill Creek Marsh is also being restored to reduce coverage of common reed. Restoration of these wetlands will provide critical stopover areas for over 260 bird species. Nine additional wetland restoration projects are proposed by the New Jersey Meadowlands Commission. Although some of these marsh restoration projects are associated with mitigation, they are still important watermarks to what can and should be done to restore the Hackensack Meadowlands.

The U.S. Fish & Wildlife Service's Partners for Fish and Wildlife program completed a project in 2000 in cooperation with the New Jersey Meadowlands Commission to restore 2 acres of native warm-season grasses in an upland adjacent to wetlands in DeKorte Park. Additionally, the Partners program has restored thousands of acres of Phragmitesdominated estuarine marshes from Cape May to Ocean County. The importance of the restoration projects in the Meadowlands lies in forging new partnerships among diverse stakeholders who share a common and valuable goal. These projects demonstrate that not only is wetland restoration possible, but together, through meaningful partnerships, great things have begun.



Digging tidal ditches to restore wetland hydrology along the New Jersey coast

The author directing a *Phragmites* control project in southern New Jersey

Photos top and bottom USFWS/Gene Nieminer